

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A communications network for exchanging data packets of ATM connections, which is hierarchically constructed, the communications network comprising:

a lowest network level having a plurality of network nodes, the plurality of lowest network level network nodes are each directly or indirectly connected₁ by at least one possible physical path₂ to terminal devices and to every other network node of the lowest network level; and

higher network levels having network nodes, the higher network level network nodes each are administratively responsible for a group of network nodes situated in an underlying lower network level,

wherein each network node situated in one of the higher network levels is physically connected to at least one network node and logically connected to every other network node, of the group of network nodes situated in the underlying lower network level for which the higher network level network node is responsible,

wherein the higher network level network node is physically or logically connected to every other network node of a group of higher network level network nodes to which the higher network level network node itself belongs,

wherein each higher network level network node provides each network node of a lower network level for which each higher network level network node is responsible, connection data which the lower network level network node requires to determine path information for the data packets of a concrete ATM connection in the communications network, and

further comprising a data bank, in which connection data are kept available, arranged in each network node of the lower network level,

wherein the data bank in each lower network level network node keeps available connection data for a closer environment, the closer environment defining network nodes in one group,

wherein at least one additional data bank, which keeps available connection data for a wider environment, is provided and assigned to a network node of the lower network level, the wider environment defining all network nodes and groups of network nodes, and

wherein a network node of a higher network level, which is responsible for the network node to which the at least one additional data bank is assigned, also comprises means for maintaining the connection data in the additional data bank.

2. (previously presented): A method for making connection data available for determining path information for data packets of ATM connections in a communications network which is hierarchically constructed such that in a lowest network level, a plurality of network nodes are provided and each are connected directly or indirectly, by at least one possible physical path, to terminal devices and to every other network node of the lowest

network level, and in higher network levels, network nodes are provided, the higher network level network nodes each are administratively responsible for a group of network nodes situated in an underlying lower network level, and each network node situated in a higher network level is physically connected to at least one network node and logically connected to every other network node of the group of network nodes situated in the underlying lower network level for which the higher network level network node is responsible, and is physically or logically connected to every other network node of a group of higher network level network nodes to which the higher network level network node itself belongs, the method comprising:

providing, when necessary, connection data, from a higher network level network node to a lower network level network node, the connection data for determining path information for the data packets of a concrete ATM connection,

wherein lower network level connection data are kept available in a data bank,

wherein the data bank in a network node of a lower network level keeps available connection data for a closer environment, the closer environment defining network nodes in one group,

wherein at least one additional data bank, which keeps available connection data for a wider environment, is accessible to and assigned to a network node of the lower network level, the wider environment defining all network nodes and groups of network nodes, and

wherein a network node of a higher network level, which is responsible for a network node to which the at least one additional data bank is assigned, is also responsible for maintaining the connection data in the at least one additional data bank.

3. (previously presented): A method for determining path information for data packets of ATM connections in a network node of a communications network which is hierarchically constructed such that in a lowest network level, a plurality of network nodes are provided and each are connected directly or indirectly, by at least one possible physical path, to terminal devices and to every other network node of the lowest network level, and in higher network levels, network nodes are provided, the higher network level network nodes each are administratively responsible for a group of network nodes situated in an underlying lower network level, and each network node situated in a higher network level is physically connected to at least one network node and logically connected to every other network node of the group of network nodes situated in the underlying lower network level, for which the higher network level network node is responsible, and is physically or logically connected to every other network node of a group of network nodes situated in the higher network level to which the higher network level network node itself belongs, the method comprising:

requesting connection data from a data bank assigned to a lower network level network node,

wherein, if the requested connection data is not available from the data bank assigned to the lower network level network node, the connection data is requested from an additional data bank which is assigned to another lower network level network node.

4. (previously presented): Network nodes for a lower network level of a communications network, which is hierarchically constructed, such that in a lowest network level

a plurality of network nodes are provided and each are connected directly or indirectly, by at least one possible physical path, to terminal devices and to every other network node of the lower network level, and in higher network levels, network nodes are provided, the higher network level network nodes each are administratively responsible for a group of network nodes situated in an underlying lower network level, each network node situated in a higher network level is physically connected to at least one network node and logically connected to every other network node of the group of network nodes situated in the underlying lower network level for which the higher network level network node is responsible, and is physically or logically connected to every other network node of a higher network level group to which the higher network level network node itself belongs, the lower network level network node comprising:

a data bank provided in which connection data are kept available,

wherein the data bank keeps available connection data for a closer environment, the closer environment defining network nodes in one group, and

wherein the network node comprises interrogation means by which the connection data for a wider environment can be called up from an additional data bank which is assigned to another lower network level network node, the wider environment defining all network nodes and groups of network nodes,.

5. (previously presented): A network node for a lower network level of a communications network, which is hierarchically constructed, such that in a lowest network level, a plurality of network nodes are provided and each are connected directly or indirectly, by

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at least one possible physical path, to terminal devices and to every other network node of the lowest network level, and in higher network levels, network nodes are provided, the higher network level network nodes each are administratively responsible for a group of network nodes situated in an underlying lower network level, and each network node situated in a higher network level is physically connected to at least one network node and logically connected to every other node of the group of network nodes situated in the underlying lower network level for which the higher network level network node is responsible and is physically or logically connected to every other network node of a group of higher network level network nodes to which the higher network level network node itself belongs, the lower network level network node comprising:

a data bank in which connection data are kept available,

wherein an additional data bank, which keeps available connection data for a wider environment, is provided and is assigned to the lower network level network node or connected to the data bank provided in the lower network level network node, and

wherein the lower network level network node further comprises means whereby connection data from the at least one additional data bank can be emitted to other network nodes upon request.

6. (canceled).

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7. (previously presented): A communications network according to Claim 1, wherein the lower network level, whose network nodes each are provided with a data bank in which connection data for a closer environment are kept available, is the lowest network level.

8. (previously presented): A communications network according to Claim 7, wherein the closer environment is a region of the group to which the respective lower network level network node belongs.

9. (previously presented): A communications network according to Claim 8, wherein at least one additional data bank is provided in each of a plurality of groups of network nodes of the lowest network level.

10. (canceled).